August 31, 2007

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Re: Comments on Tulare Lake Basin Plan Triennial Review

Dear Regional Water Board Members:

Thank you for the opportunity to comment on the Tulare Lake Basin Plan Triennial Review. The Community Water Center is a non-profit organization based in Visalia, California, that works to ensure that all communities can have access to safe, clean and affordable drinking water. We believe that the **Basin Plan must incorporate drinking water source protection, particularly groundwater, as a top priority and develop a clear, concrete timetable and action plan for implementation**, as required by California Water Code Section 13242.

Currently **groundwater contamination is causing a drinking water crisis** in the Tulare Lake Basin, which **continues to worsen**. Nitrate contamination continues to increase in Tulare County, and other parts of the basin, both in the level of concentration and the number of wells contaminated.[1] Already, approximately 20% of public water systems in Tulare County have nitrate levels over the Maximum Contaminant Level (MCL)[2] and therefore over the water quality objectives set in the Basin Plan, and 40% of private wells tested in Tulare County through the Groundwater Ambient Assessment Program (GAMA) in 2006[3] had nitrate levels over the MCL. Tulare County's own preliminary private well testing results for new wells indicates that over 80% of wells have elevated levels of nitrate, meaning over half the MCL.[4] Nitrate contamination of drinking water sources continues to occur in every county in the Tulare Lake Basin, meaning that **municipal and domestic beneficial uses are not being protected and must be restored**.

[1] This trend is based on monitoring data available through the Tulare County Department of Environmental Health's Drinking Water Program. For exact numbers contact Susan Shaw at (559) 733-6441.
[2] This number is based on both the large and small systems in the county as reported by the Department of Public Health and the Tulare County Department of Environmental Health's Drinking Water Program.
[3] Results are available at http://www.swrcb.ca.gov/gama/voluntry.html#tulare
[4] Susan Shaw, Tulare County Dept. of Env. Health, Presentation to the Tulare County Water Commission (Aug. 2007).

I. The Basin Plan Must Include an Implementation Plan to Meet Groundwater Quality Objectives.

The Water Quality Control Plan for the Tulare Lake Basin does not include a program for implementation of water quality objectives, as required by Water Code Sections 13240 – 13242. Specifically, we request that the Regional Water Quality Control Board **develop a plan for implementation to meet groundwater quality objectives for inclusion in this Triennial Review.**

The Water Quality Control Plan for the Tulare Lake Basin sets groundwater quality objectives at the MCLs specified in Title 22 of the CCR for all groundwater in the region (with a few minor exceptions[5]). The Plan acknowledges that groundwater contamination has caused groundwater to not meet these objectives in "several" areas within the basin.[6] The Plan states that in most cases the source of this contamination is from nonpoint sources.[7] However, currently the only implementation program for meeting these objectives is the following: "Investigations should be done to identify potential sources of these contaminants and practices should be developed to reduce these impacts."[8] This sentence of intent does not amount to a *program for implementation* which must include at the very least 1) "a description of the nature of actions which are necessary to achieve the objectives," and 2) "a time schedule for the actions to be taken.[9]"

Given the widespread impact to beneficial uses in the region, particularly human health, a strong *program for implementation* should be given top priority.

II. Groundwater Assessment

As staff acknowledges, a groundwater monitoring network for the Tulare Lake Basin, a first step in even understanding the problem, was never established. We agree that the Regional Board must make good use of existing water monitoring data already being collected by other agencies. Specifically, the Department of Public Health and Department of Pesticide Regulation have large groundwater monitoring databases for this region, which should be integrated. Additionally, the State Water Resources Control Board's GAMA program has conducted groundwater testing in the area, and USGS has also done a number of studies, particularly regarding nitrates and pesticides. All this data should be incorporated into the Regional Board's groundwater assessment program.[10]

[5] See Table II-2 for the exceptions to municipal or domestic supply beneficial uses, page II-7 (1995).
[6] See IV-30. (17 August 1995).
[7] Id.
[8] Id.
[9] CA Water Code §13242.
[10] Contacts for these programs can be provided, if needed, upon request.

In addition, however, **the Regional Board should require all dischargers of groundwater contaminants to provide monitoring data, at least up and down gradient of their facility, as part of the permit requirements.** The only way to ultimately determine what impacts a discharger is having is to test it. Over time this data will help the Regional Board refine its permits to ensure that best management practices are being implemented on individual facilities and groundwater is protected.

However, it is important that the Regional Board does not use this analysis as an excuse for not requiring best management practices for groundwater protection today. Studies already have shown many of the types of facilities that are significant contributors to groundwater contamination, including dairies, food processors, waste treatment facilities, and irrigated lands, and best management practices and treatment technology must be required now.[11] A groundwater monitoring network should be used to help refine those requirements to be more effective.

One extremely important source of information is identifying the location of "dry wells," inadequately abandoned or improperly sealed wells, and other conduits to groundwater aquifers. These pathways of contamination are extremely important to find in order to protect drinking water sources.[12] As part of the groundwater assessment data gathering, efforts should be made to identify areas where such pathways may be found so that they can be prioritized as vulnerable aquifers. Ultimately the implementation plan should address how the Regional board will address this source of aquifer contamination.

Finally, it is important that these networks not just identify the problems after they have happened, but also find where they are coming from and prevent widespread contamination before it occurs. Therefore it is vital to have shallow monitoring, such as vadose zone monitoring, in addition to deeper well testing. Again, this should be required as part of all permits for groundwater dischargers, such as dischargers to land.

III. Groundwater Quality Objectives for Salinity

Salinity objectives should include **nitrates** specifically and clarify the sources of nitrates, how objectives will be implemented in best management practices and treatment technology requirements, as well as the means of measuring compliance.

[11] A bibliography of such studies can be provided to staff upon request, if needed.

[12] The Department of Pesticide Regulation's Groundwater Program and the Department of Public Health's Drinking Water Program (previously named the Department of Health Services), have identified these pathways as significant sources of contamination. Specific memorandum and contact information for these programs can be provided if needed.

IV. Beneficial use Designations

It is vital that municipal use designations not be eliminated in areas where drinking water wells are located merely because point or nonpoint contamination sources have been allowed to pollute the aquifer to the point that it is no longer useable. The Regional Board has a responsibility to protect and restore our water for beneficial uses.

V. Salt Management Policy

The Salinity Policy efforts must be integrated into this Basin Plan. However, **sources of nitrate contamination should be identified, best management practices and treatment technology should be incorporated into requirements for all dischargers, and mechanisms must be developed for effective monitoring and enforcement.** While nitrates should be integrated into the Salinity Policy efforts, given the urgency of the public health crisis around nitrate contamination of drinking water, the efforts around nitrates should be fast-tracked outside of the longer-term salinity policy efforts, and developed for implementation in the next two to three years.

Conclusion

Thank you for the opportunity to provide public comments on this update. The current Tulare Lake Basin Plan is legally and substantively inadequate and must be updated to provide an implementation plan to comply with water quality objectives, particularly for groundwater used as a source of drinking water. We hope the Board will use this opportunity to develop a comprehensive program to address nitrate contamination, in particular. We look forward to continuing to work with the Board to ensure that our waters are adequately protected and that all communities have access to safe, clean and affordable drinking water.

Sincerely,

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